

REMARKS

Claims now presented for prosecution in this Application are claims 1-6, 9, 11-16, 29, 30 and 32. Claims 1 and 30 have been amended to further define the invention. Claims 1-6, 9, 11-16, 29, 30 and 32 have been rejected over cited prior art. The following remarks are directed to the claims as amended.

The 35 U.S.C. 103(a) Rejection of Claim 1-2, 4-6, 11-15, 29, 30 and 32

Claim 1-2, 4-6, 11-15, 29, 30 and 32 stand rejected as being allegedly unpatentable over U.S. Patent No. 5,931,666 (Hengst) in view of U.S. Patent No. 5,904,778 (Lu).

Examiner's grounds for rejection are hereinafter traversed, and reconsideration is respectfully requested.

The Examiner has combined Hengst and Lu in an obviousness rejection of the claims 1 and 30. However, combining any two or more references to form a prima facie case of obviousness is always a judgment call, which can be refuted by external evidence to the contrary. Accordingly, and without conceding the validity of the Examiner's position in this regard, the Applicant is submitting the attached Affidavit as evidence of the commercial success of the invention to rebut any such potential prima facie case of obviousness.

The Affidavit is the sworn testimony of Richard R. Hengst, the inventor and product manager of Crystar[®] Components (herein Crystar[®]), a division of the Applicant Saint-Gobain Ceramics & Plastics (Affidavit paragraphs 1 and 2). As product manager, Mr. Hengst is an expert in the wafer boat market (herein the market) (Affidavit par. 2).

According to Mr. Hengst's testimony, the invention was incorporated into "Crystar® 300 mm Wafer Boats", i.e., part no. 990-0492, and introduced into the market in approximately September of 2001 (Affidavit par. 8). However, in addition to the invention, other "enhanced geometric features" were also incorporated into the Wafer Boats (Affidavit par. 9).

The Crystar® 300 mm Wafer Boats immediately realized a great deal of commercial success over the competitors wafer boats, which included all of the same functional features except the invention and the enhanced geometric features (Affidavit pars. 10 and 14). That is, not only did the Crystar® 300mm Wafer Boats command an average selling price of approximately 2.4 times that of the average selling price of the competitions, it was able to successfully penetrate the new foreign markets of France, Taiwan and Japan.

The Affidavit clearly shows that the commercial success was directly derived from the invention as follows.

- 1) The wafer boats are highly complex, high dollar items (Affidavit par 4), which are purchased by professional purchasing agents (Affidavit par. 3) that take a great deal of care in making a buying decision based on the best commercial value to the company, rather than the price (Affidavit par. 5). Accordingly, as Mr. Hengst testifies, the primary factor which influences the purchasing agents' decision to buy is the "technology differences between wafer boats" (Affidavit par. 5).
- 2) The market place has at least three other major competitors and 3 minor competitors, wherein the purchasing agents are free to choose on the basis of objective principles (Affidavit par. 6).

3) The success was not the result of heavy promotion or advertising, shift in advertising, consumption by purchasers normally tied to the applicant or assignee, or other business events extraneous to the merits of the claimed invention (Affidavit par. 16).

The only real issue was how much of the commercial success of the Crystar® 300 mm Wafer Boats should be attributed to the invention (Affidavit par. 8), and how much should be attributed to the enhanced geometric features (Affidavit par. 9). To examine this issue, the Affidavit evidence also compares the relative commercial success of the Crystar® 300 mm Wafer Boats to that of Crystar® 200 mm Wafer Boats.

The Crystar® 200 mm Wafer Boats were introduced into the market in Approximately May of 2001 and only incorporated the enhanced geometric features (Affidavit par. 11). The Crystar® 200 mm wafer boats thus had all the same functional features as the 300 mm wafer boats except for the invention (Affidavit par. 12). Additionally, the competition's 200 mm wafer boats had all of the features of the Crystar® 200 mm wafer boats except for the enhanced geometric features (Affidavit par 13).

In order to provide a valid comparison between sales of the Crystar® 200 mm and 300 mm Wafer Boats it is important to note that both the number of competitors and overall competition for market share were approximately equal between the 200 mm and 300 mm sub-markets (Affidavit par 7).

Upon introduction into the market, the Crystar® 200 mm Wafer Boats also enjoyed immediate commercial success (Affidavit par 15), that, for all of the same above reasons, could be attributed directly to the technological advantages the enhanced geometric features provided them.

However, the relative commercial success of the Crystar® 200 mm Wafer Boats without the invention was small compared to the relative commercial success of the Crystar® 300 mm Wafer Boats which did include the invention. That is, the Crystar® 200 mm Wafer Boats commanded an average selling price of only approximately 1.2 times that of the average selling price of the competition, rather than the 2.4 times of the Crystar® 300 mm Wafer Boats. Just as significantly, the Crystar® 200 mm Wafer Boats have currently not been successful in penetrating the foreign markets of France, Taiwan and Japan, whereas the Crystar® 300 mm Wafer Boats have been selling well in those new markets (Affidavit par 15).

Accordingly, it is logical to conclude that the bulk of the commercial success of the Crystar® 300 mm Wafer Boats is clearly, directly and primarily due to the invention incorporated therein (Affidavit par. 17) Moreover, this showing of commercial success is not only attributable to the excellence of the patented invention that the product embodies, it is also relevant to the non-obviousness of the invention.

Therefore, for at least the reasons stated herein above, Claims 1 and 30 are patentable over Hengst in view of Lu. Claims 2, 4-6, 11-15 and 29 should be patentable over the cited art as variously depending from what should now be an allowable independent Claim 1. Claim 32 should also be patentable over the cited art as depending from what should now be an allowable independent Claim 30.

The 35 U.S.C. 103(a) Rejection of Claim 1-6, 9, 11-15, 29, 30 and 32

Claim 1-6, 9, 11-15, 29, 30 and 32 stand rejected as being allegedly unpatentable over U.S. Patent No. 6,093,644 (Inaba) in view of U.S. Patent No. 5,904,778 (Lu). Examiner's grounds for rejection are hereinafter traversed, and reconsideration is respectfully requested.

For at least the same reasons independent claims 1 and 30 are patentable over Hengst in view of Lu, they are patentable over Inaba in view of Lu. Accordingly claims 2-6, 9, 11-15 and 29 should be patentable over the cited art as variously depending from what should now be an allowable independent Claim 1. Claim 32 should also be patentable over the cited art as depending from what should now be an allowable independent Claim 30

The 35 U.S.C. 103(a) Rejection of Claim 16

Claim 16 stands rejected as being allegedly unpatentable over Inaba in view of Hengst or US Patent No. 6,171,400 (Wingo). Examiner's grounds for rejection are hereinafter traversed, and reconsideration is respectfully requested.

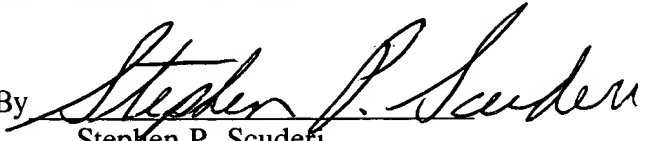
For at least the same reasons stated above claim 16 should also be patentable over the cited art as depending from what should now be an allowable independent Claim 1.

In view of the aforementioned it is believed this application is now in condition for full allowance and such action at an early date is earnestly solicited. However, if the Examiner is not persuaded by Applicant's reasoning, than Applicant requests that the Examiner call the Applicant's attorney before issuing a final rejection to further discuss the issues. The Examiner is invited to contact Applicant's attorney at the below-listed phone number with any questions.

Should there be any deficiency in fees associated with the filing of this Response, please charge our Deposit Account No. 03-3355.

Respectfully submitted,

RICHARD R. HENGST

By 
Stephen P. Scuderi
Registration No. 42,136
Attorney for Applicant
(860) 241-2631